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REMARKS ON HEPATIC PHLEBOTOMY, AND
PUNCTURING THE LIVER'S CAPSULE AS REMEDIAL
MEASURES IN HEPATIC DISEASES.

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SEEING that the study of liver-diseases has not only come prominently to the front in recent years, but that, at present, when hepatic surgery is actively engaging the attention of some of the most acute and original thinkers in the profession, both in Europe and America, the members of our own Association, familiar with liver-diseases, take a deep interest in the subject, as was manifested not alone by the animated discussion which followed upon the reading of the above-named papers at our agreeable and instructive Brighton meeting, but by the letters¹ that have since appeared in the JOURNAL, I crave leave to make a few more observations on the matter. This appears to be all the more desirable since it is highly probable that these newly proposed methods of treatment may open up an entirely fresh epoch in the handling of many of the liver-eases which have hitherto been regarded as among the most intractable, and consequently most hopeless, forms of disease. As well as from the fact that some of the gentlemen that have commented upon them in the pages of the JOURNAL have unwittingly confounded the two above-named new forms of operative procedure with two old ones—namely, hepatic exploration, associated with accidental hæmorrhage, on the one hand, and the Chinese system of acupuncture, upon the other—entirely distinct surgical procedures, which resemble them in nothing, except in so far as it is the same organ of the body that is operated upon, and the instruments employed happen to possess the same form.

There being apparently no longer any doubt as to the practical value of the newly proposed method of hepatic phlebotomy in suitable cases, from even the personal experience of accidental hepatic hæmorrhage

¹ BRITISH MEDICAL JOURNAL, November 13th, p. 800; December 4th, pp. 1134-5.

recorded by its adverse commentators, pointing strongly in favour of the operation, I can at once proceed to explain what are the differences not only as regards the nature, but the actual objects of hepatic phlebotomy and hepatic exploration, with hæmorrhage, on the one hand, and Chinese acupuncture and puncturing the capsule of Glisson, on the other—four such distinctly different forms of hepatic surgery, that it is almost inconceivable to me how any well-educated man could possibly have fallen into the error of confounding them. Nevertheless, as the readers of the JOURNAL must have seen, this has actually occurred, not alone in the case of Dr. Boyes Smith, but likewise in that of Surgeons Alexander, Ryan, and Quill—all army men. I think it my duty to endeavour to remove the ambiguity. And, while doing so, in order to increase the value of the communication, I shall take the opportunity of throwing out one or two practical hints, which, if attended to, will, I think, greatly tend to diminish the dangers which occasionally attend the present modes of exploring the liver for purulent matter.

First, then, as regards exploring the liver for pus. This is an operation which has been had recourse to by our Indian *confrères* for nearly forty years. If I remember right, it was first done in the Bengal Presidency about the year 1848; and, to my personal knowledge, it has been practised in London since the year 1864. At first the instruments employed in the performance of the operation were merely ordinary trocars of about the size of No. 12 English male catheters. But as dangerous, and sometimes even fatal, hæmorrhages occasionally followed upon the operation, much smaller instruments began to be employed, and now it is the fashion only to use the needles of an aspirating apparatus. Even with these, however, regrettable accidents have occurred, most probably, I think, on account of the operators thrusting the exploring instruments into any and every part of the liver where pus is suspected to exist, without paying any attention to the anatomy of the organ, either as regards the distribution of its vessels, or the relationship of the point at which its surface is penetrated to the interior of the abdominal walls. This opinion I arrive at from the fact that, notwithstanding the frequency with which I have had to operate upon the liver during the last twenty years, I have never on one single occasion as yet encountered any dangerous hæmorrhage.

The precautions I take are the following: (a) Always to commence the exploration either with a fine aspirating needle, or an equally fine 7 inch long French exploring trocar, attached to a small (drachm sized) glass syringe, which acts as an aspirator, and admits of my at once perceiving whether I have pus, hydatid fluid, or blood to deal with. So that, if need be, I can instantly withdraw the instrument.

When pus is the product found, as it flows but badly through a small tube, I replace the fine instrument with a larger one, attached to which is a caoutchouc exhausting ball, aspirator,² and syphon-tube, with which I can withdraw the purulent matter.

(b) I never allow the point of my exploring instrument to go any-

² This mode of aspirating the liver I was led to adopt from my having, on one occasion, been present at a liver-exploration when one of our metropolitan hospital surgeons had the misfortune to withdraw a quantity of liver-tissue. And on another occasion I had a liver sent to me for examination, with a cavity in it, the size of a small orange, produced, as I imagined, by the surgeon's aspirator having acted too powerfully, and sucked out the softened liver-tissue. With the caoutchouc ball all danger of an over-suction is annulled, and it possesses the additional advantage of admitting of a graduated aspiratory pressure being employed, by slowly relaxing the ball with the fingers, which is often a point of no mean importance in certain cases. Since my first employing this caoutchouc contrivance, I have almost entirely abandoned the use of the metallic aspirator, either in exploring the liver, emptying cysts, or withdrawing acetic fluid from the abdomen.

where near those portions of the liver in which its large blood-vessels are normally situated.

(c) I make it a point always to penetrate the capsule at a part of the liver where the wound-orifice (after the withdrawal of the instrument) can be brought into immediate contact with the abdominal parietes, so as to admit of the opening into the liver being firmly closed by the direct pressure produced upon it from the application of a pad and tight bandage to the abdominal walls. Thus, I believe, is precluded all possibility of any hæmorrhage taking place from the liver into the peritoneal cavity after the completion of the operation. The external abdominal wound I simply close with a two-inch-square piece of sticking-plaster.

If these common-sense precautions be taken, I think it is very unlikely that any such untoward accident as that which Dr. Boyes Smith tells us befell him would be likely to occur. Namely, that his patient died in a state of collapse, from hæmorrhage into the abdominal cavity, within a few hours after his exploring the liver for an abscess. Nor do I believe it is at all probable that the accidental hæmorrhage occasionally occurring during the operation of exploring, would ever reach an amount sufficient to endanger life. The escape of a few ounces of blood during the operation is never dangerous. We are even told by the very correspondents, who are apparently anxious to deprecate the employment of hepatic phlebotomy in acute hepatitis, that in the course of their own experience the bleeding has been followed by salutary results! Indeed, when the wording of their letters is carefully analysed, it is difficult to see why they were ever written, unless it were solely for the purpose of depriving me of the credit of being the first who ventured to employ hepatic phlebotomy as a remedial agent. For their only cry is "hepatic phlebotomy is not a new operation; as blood has been withdrawn from the liver during the course of an exploration for abscess." Seeing, however, that the one operation is performed solely with a diagnostic intent, and the other with a direct curative one, it appears to me about as logical to say that they are identical (on account of the occasional occurrence of accidental hæmorrhage), as it would be to call the accidental wounding of a brachial vein during the opening of an abscess in the arm, a venesection. Of course, the assertion in the latter case would be instantly condemned as preposterous. But is it one whit more preposterous than to call an accidental liver-hæmorrhage hepatic phlebotomy? I think not. So I will leave the point, and now add one or two more hints that may be useful to would-be operators, in addition to those already given in my paper.³ These are: that, as all enlargements of the liver are not suitable for hepatic phlebotomy—to wit, those arising from cancerous, fatty, and amyloid degenerations—great care ought to be taken that a correct diagnosis is made before entering upon the operation. This is all the more imperative, seeing that it is sometimes difficult to differentiate different kinds of liver-enlargements. Fortunately, however, should a mistake in this respect be made, it is consoling to know that it is very unlikely much blood will come away: probably not more than a few drops. For it is only when the liver-tissues are engorged that blood flows freely from the organ when it is punctured.

Having finished with the subject of hepatic phlebotomy, I now come to the consideration of puncturing the capsule of Glisson as a remedial measure in cases of congestive hepatic hypertrophy, which some of our associates boldly assert is the same operation as the old Chinese one of acupuncture. The mere fact of acupuncture (as the word *acus*, a needle, implies) being performed with solid gold or silver

³ BRITISH MEDICAL JOURNAL, November 13th, 1886, p. 899.

needles in painful affections, and my operation being performed with trocars and cannulæ in a diseased state of the organ which is anything but painful, one would imagine might presuppose that the two forms of operative procedure were entirely distinct. Except in so far as the same organ happens to be the one operated on, and the instruments employed possess the same form. Some of our associates, however, appearing to be of a different opinion, and no doubt having good grounds for their belief, I would suggest that they furnish us with all the facts in their possession regarding acupuncture of the liver as practised by the Chinese. I must candidly admit I know nothing whatever regarding it, except from the vague and unsatisfactory statements that have at various times appeared in our weekly medical journals, from the pens of men who, though writing as if they knew all about it, never by any chance whatever, as far as I am aware, condescend to furnish their readers with a single particular.

So soon as my critics have detailed the grounds of their criticisms on this point, I shall, to the best of my ability, duly consider and comment upon them. Meanwhile, I think I have said sufficient to prove that Messrs. Smith, Alexander, Ryan, and Quill have erred in confounding two entirely new operations with two totally distinct old ones, with which they have nothing whatever in common, either as regards nature or design.

